

[BEN-MET STEEL] LIEBHERR LH60C 102201-1528 - Diesel Engine

Sample No: LH0274860

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Oil Type: DIESEL ENGINE OIL SAE 15W40

SAMPLE INFORMATION

LH0274860	LH0256991			
27 Feb 2024	10 Aug 2023			
12877	12158			
0	0			
Changed	N/A			
ABNORMAL	ABNORMAL			
	27 Feb 2024 12877 0 Changed	27 Feb 2024 10 Aug 2023 12877 12158 0 0 Changed N/A	27 Feb 2024 10 Aug 2023 12877 12158 0 0 Changed N/A	

 Visc @ 100°C
 cSt
 12.3
 16.4

 Oxidation (PA)
 %
 114
 150

CONT	AMIN/	TION		
Water	%	NEG	NEG	
Soot %	%	0	0	
Nitration (PA)	%	119	149	
Sulfation (PA)	%	72	83	
Glycol	%	0.0	NEG	
Fuel	%	0 1.8	<1.0	
Silicon	ppm	0 9	5	
Sodium	ppm	0 9	0 6	
Potassium	ppm	0 22	0 2	

WEAR METALS

Iron	ppm	0 17	0 14	
Copper	ppm	0 103	02	
Lead	ppm	0 14	2	
Tin	ppm	08	○ <1	
Aluminum	ppm	02	3	
Chromium	ppm	○ <1	○ <1	
Molybdenum	ppm	48	65	
Nickel	ppm	○ <1	0	
Titanium	ppm	0	0	
Silver	ppm	○ <1	○ <1	
Manganese	ppm	01	○ <1	
Vanadium	ppm	0	0	

ADDITIVES					
Calcium	ppm	0 1305	0 1647		
Magnesium	ppm	924	O 691		
Zinc	ppm	0 1153	0 1209		
Phosphorus	ppm	943	0 1055		
Barium	ppm	0 39	0		
Boron	ppm	0 13	◯ 31		



LIEBHERR CANADA LTD.

1015 SUTTON DRIVE BURLINGTON, ON CA L7L 5Z8 Contact: Joseph Rodgers joseph.rodgers@liebherr.com T: F: (905)319-6622

Diagnosis

We advise that you check for faulty combustion and a possible overheat condition. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time. Tin ppm levels are abnormal. Slide bearing wear is indicated. Light fuel dilution occurring. No other contaminants were detected in the oil. A small degree of oil oxidation was indicated. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot:LIEMISUnique No:5735738Signed:Kevin MarsonReport Date:01 Mar 2024

Report Id: LIEMIS [WCAMIS] 02618628 (Generated: 03/01/2024 16:05:10) Rev: 1

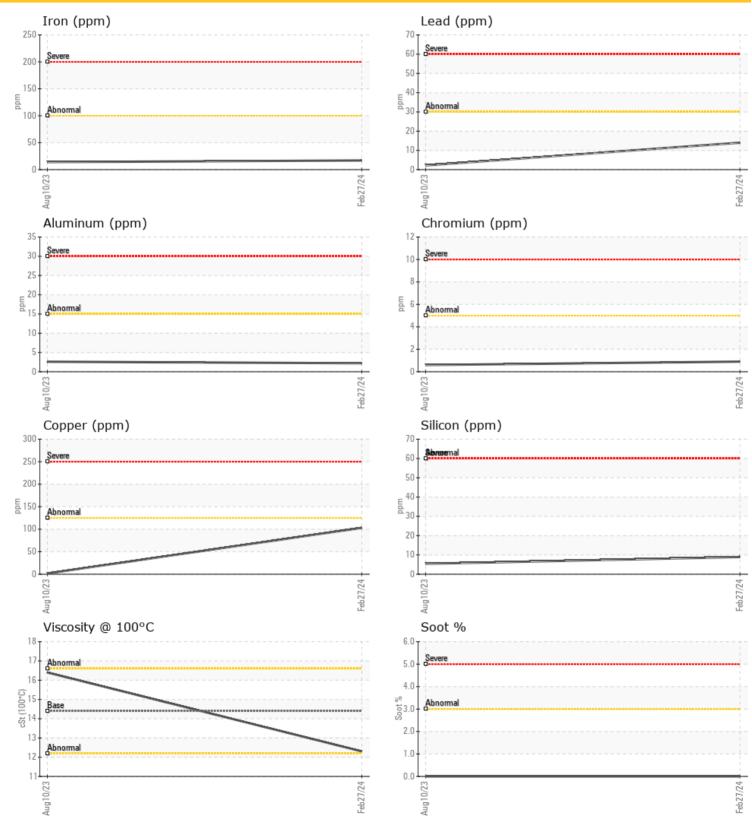
Contact/Location: Joseph Rodgers - LIEMIS





GRAPHS

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